

Heavy Flavor MDC1

Status and Plans

Cameron Dean

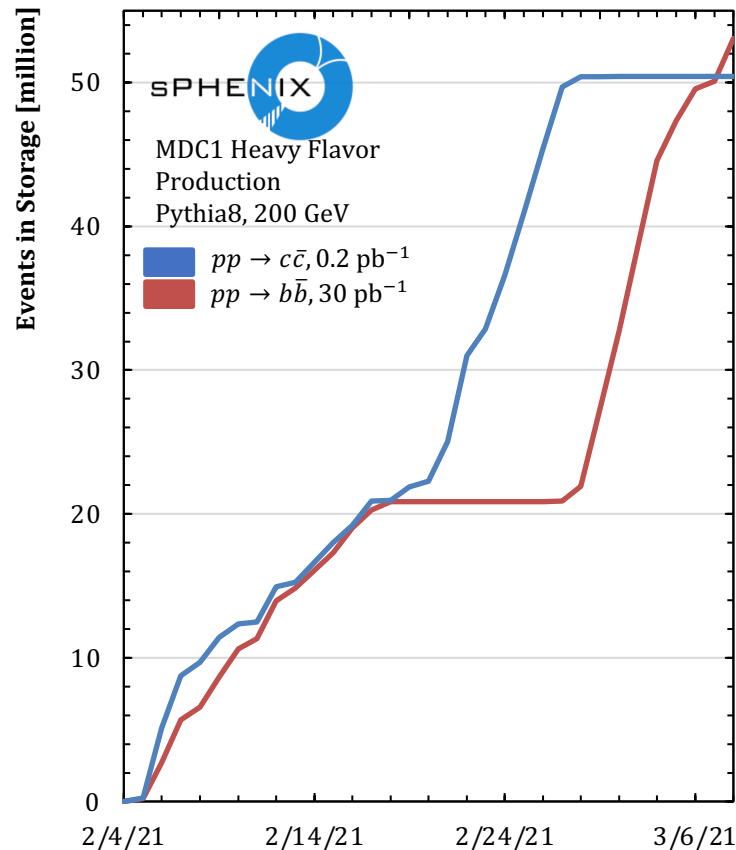
03/22/2021

HF TG Meeting

Production Status and Info

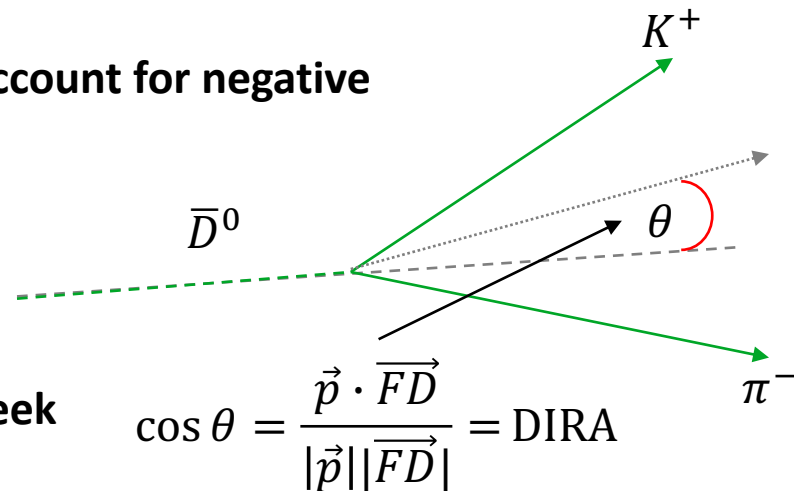
- MDC info has been migrated [here](#) for legacy purposes
- [KFParticle has a new twiki](#) with info on how to setup, what options are available and what the output branches mean
- [KFParticle had a new release on Friday](#)
- Our MDC production is complete, do we want to petition for another production?

Production Information	Value (as of 2021/03/10 09:49 ET)
No. c-cbar files in bookkeeping	46999
No. c-cbar events in bookkeeping	50428859
No. b-bbar files in bookkeeping	48996
No. b-bbar events in bookkeeping	53077201



KFParticle changes

- I introduced a bug into previous package release
 - **Reflections were appearing in some distributions like decay time**
 - **Sebastian caught and reported this**
 - **Cause: I took absolute value of DIRA to account for negative coordinates**
 - **This caused flight direction and mom. to point in opposite directions**
- Request: Add truth vertex info.
 - **This should now be standard as of last week**
- To do's:
 - **I can now get track calo information. Do we want this and how?**
 - **Still need to get mother truth association**



Free reconstruction sample

- As a part of my testing I made a sample of low mass dipions with loose selection from $c\bar{c}$ sample (0.3 to 2.0 GeV)
 - I also performed mass inversions for electrons, muons, kaons and protons**
- Grab a copy if you want to investigate them (14 GB, 11.4 M cands.)
`/sphenix/user/cdean/testArea/charm/outputData_lowMassPiPi_alt_reco.root`

